

REMARKS

The office action of November 4, 2003 has been reviewed and its contents carefully noted. Reconsideration of this case, as amended, is requested. Claims 1 through 7 remain in this case, claim 1 being amended by this response to increase the clarity of the claims regarding the word "aligned."

Applicant wants to thank the Examiner for the telephonic interview held on December 22, 2003. US 6,500,084 was discussed in view of the claim language and an exhibit was presented that showed that the chain when straightened in Figure 2 of US 6,500,084 the guide links do not touch. A copy of the Exhibit presented is enclosed.

Rejection(s) under 35 U.S.C. §103

Claims 1, 2, 5, 6, and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over McIntosh (USPN 4,402,676) in view of Wigsten (USPN 6,500,084). Applicant respectfully disagrees.

Applicant's invention is a compression-type inverted tooth chain. That is, conventional chains, such as those in the McIntosh reference, transfer force by having the driving sprocket pull on the chain. Force is transferred from one link to the next, through the pins, by the tension of the chain. In contrast, Applicant's invention transfers force by pushing on the chain - that is, by compression of the guide links.

McIntosh, as noted above, is a conventional tension chain, which cannot transfer force by compression since the outside links are not in contact with one another - see figure 1 of McIntosh.

Wigsten shows another conventional tension chain. In referring to enclosed Exhibit A, the only time the leading end of the guide link contacts the trailing end of the adjoining link is when the links are around the driving and driven sprockets. Otherwise, when the guide links are

between the driven and driving sprockets, a gap is present between adjacent links. Therefore, if compression of the chain were to occur, the chain would buckle.

The combination of McIntosh and Wigsten results in a conventional chain, where the force is transferred through the pins when the driving sprocket pulls on the chain, with the added outer band of McIntosh and the guide links of Wigsten that touch only when the guide links are around a sprocket.

Applicant's chain is comprised of a plurality of inner sprocket-engaging blocks and outer force-transmitting guide links, which are connected together by pins. When the chain engages the driving and driven sprockets, rotation force is transferred from the teeth of the driving sprocket to the teeth of the sprocket engaging blocks. The force is then transferred through the pins to the guide links, which are shaped such that when the guide links are aligned in a straight line between the driving and driven sprockets, the leading end of each links contacts the trailing end of the next link.

Therefore, Applicant respectfully disagrees, and believes the claims, as amended, are patentable over McIntosh and Wigsten, individually and in combination. Reconsideration and withdrawal of the rejection is respectfully requested. Dependent claims 2, 5, 6, and 7, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations they contain.

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over McIntosh in view of Wigsten as applied to claims 1, 2, 5, and 7, further in view of Henderson (USPN 4,595,385). Applicant respectfully disagrees.

The arguments regarding the McIntosh in view of Wigsten, are repeated here by reference.

Henderson discloses a V-belt for continuously variable transmissions, where the "V" is formed by transverse elements carried by a toothed flexible belt. The belt is not driven by sprockets contacting inverted teeth, but rather by the sheaves pressing on the sides of the transverse elements. There are no toothed links or guide links, therefore there could not be any pins running between pairs of guide links as required by the present claim 3.

The addition of Henderson to McIntosh in view of Wigsten, as applied to claims 1, 2, 5, 6, and 7 would result in the conventional tension chain with added outer band of McIntosh, having Wigsten's guide links that touch only when they are around a sprocket, and Henderson's upper pins to retain the band. Therefore, the combination of McIntosh in view of Wigsten, as applied to claims 1, 2, 5, 6, and 7 in further view of Henderson does not result in Applicant's invention. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 4 was rejected under 35 U.S.C. 103 (a) as being unpatentable over McIntosh in view of Wigsten, as applied to claims 1, 2, 5, 6, and 7 further in view of Mott (USPN 5,993,345).

The arguments regarding the McIntosh in view of Wigsten, are repeated here by reference.

Mott is a compression chain, which uses two laminated retaining bands (106) to retain the load blocks. This is not uncommon in compression-type CVT belts. However, Mott does not have toothed links or guide links of the form required by claim 1, as amended.

The combination of McIntosh in view of Wigsten, as applied to claims 1, 2, 5, 6, and 7 in further view of Mott would result in the tension chain of McIntosh, the guide links of Wigsten, which only touch when around a sprocket and a which retaining band (30) is laminated instead of a single piece from Mott. The combination does not result in Applicant's invention. Reconsideration and withdrawal of the rejection is respectfully requested.

Conclusion

Applicant believes the claims, as amended, are patentable over the prior art, and that this case is now in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with Applicants' attorney would advance the prosecution of the case to finality, he is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

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~~Exhibit~~ Exhibit
Sheet: 1 of 1
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Fig. 2
Prior Art

